

12/05

2

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/992,901

DATE: 12/03/2001
TIME: 14:45:50

Input Set : A:\SALKINS024DV1.TXT
Output Set: N:\CRF3\11212001\I992901.raw

ENTERED

4 <110> APPLICANT: Neff, Michael M.
 5 Chory, Joanne
 7 <120> TITLE OF INVENTION: GENETICALLY MODIFIED PLANTS HAVING
 8 MODULATED BRASSINOSTEROID SIGNALING
 11 <130> FILE REFERENCE: SALKINS.024DV1
 C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/992,901
 C--> 13 <141> CURRENT FILING DATE: 2001-11-14
 13 <150> PRIOR APPLICATION NUMBER: US 09/527,073
 14 <151> PRIOR FILING DATE: 2000-03-16
 16 <150> PRIOR APPLICATION NUMBER: US 60/124570
 17 <151> PRIOR FILING DATE: 1999-03-16
 19 <150> PRIOR APPLICATION NUMBER: US 60/170,931
 20 <151> PRIOR FILING DATE: 1999-12-14
 22 <150> PRIOR APPLICATION NUMBER: US 60/172,832
 23 <151> PRIOR FILING DATE: 1999-12-20
 25 <160> NUMBER OF SEQ ID NOS: 16
 27 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 29 <210> SEQ ID NO: 1
 30 <211> LENGTH: 1563
 31 <212> TYPE: DNA
 32 <213> ORGANISM: Arabidopsis thaliana
 34 <220> FEATURE:
 35 <223> OTHER INFORMATION: Oligonucleotide
 37 <400> SEQUENCE: 1
 38 atggaggaag aaagtgcag ctggttcatt ccaaagggttc ttgttctgtc tgtaatctta 60
 39 agtcttgtaa tagtgaaggg tatgtctctg ttatgtgga gaccaagaaa gattgaagaa 120
 40 catttctcta aacaaggaat tcgaggtcct ccttattcatt tcttcattcgaa aatgtttaaa 180
 41 gaacctgttg gaatgtatgtct taaagcttct tctcatccata tgcctttctc tcacaatatt 240
 42 cttccctagag ttctctcttt ttaccatcac tggagaaaaa tctacgggtc tacatttctg 300
 43 gtttgggtcgtc gtccaaacttt ccggtaacgtc gttagccatc ctgattttgtat cagagagatc 360
 44 ttctctaagt ctgagttctta cgagaagaat gaagctcacc ctttgggttaaa acaacttgaa 420
 45 ggcgcgtggac tacttagtct caaagggtgaa aaatgggtc atcatcgaaa aatcatttagc 480
 46 cctacttttc atatggagaa tcttaagtttgc tttgttaccag ttgtgttggaa gagttgtgact 540
 47 gatatgggtgg ataaaatggtc cgataagtta tcagaaaacg gtgaagttga ggttagatgtc 600
 48 tatgagtgggt ttcagatttt gactgaagat gttatttagta gaacagcttt tggaaagttagc 660
 49 tataaagatg gtcgagcgt ttttcactt caagctcaac aaatgttct ttgtgtctgaa 720
 50 gcttttcaaa aagtcttcattt tccctggcttat agatttttc cgacaagagg gaatttgaag 780
 51 tctcggaaatg tagacaagga gataagggaaat tcgttggatc agctgtataga gcggcggaga 840
 52 caaaacgcata tagatggaga aggggaagaa tggatggatc cggcggcggaa ggatttggat 900
 53 ggattaaatgtt ttcaggccaaat gaatgtgcgtc gttcaggaca ttgtggagggatc gtgtaaaagc 960
 54 tttttcttcgc cccggaaacaa gacaacttctt aatctgtcgtc cgtggacgcac catcttgcata 1020
 55 tccatgcacc cggagttggca ggcggaaacgtc cgtgtatggggatc tccctcagggtt ctgcggctca 1080
 56 cgtgtatgtcc ctaccaagga ccatgtcgatc aagctttaaaat cgttggatgtat gatcttgcata 1140
 57 gagttttttaaaat ggttgcgtatcc accaatgtatc gctacgattc gacgcgttcaaaat atcgatgtc 1200
 58 aagcttaggat ggtacaaaat cccatgtggc acggagcttc taatcccaat catagcggtc 1260
 59 catcatgacc aagccatccatggtaatgac gtgtacaaat tcaatccacgc tcgggttgcg 1320
 60 gatggatgtc cgcgtgcgtc caaacacccccccgttgcgttca taccgtttggatc cctcggatgtt 1380

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61 cgtacatgca ttggtcagaa tcttgctata ctgcaggcca aattgacact cgctgtaatg 1440
 62 atccaacgct tcaccttca ctggctcct acttatcagc atgcacacctac cgtccttatg 1500
 63 ttgcttatac ctcaacatgg tgccacaatc accttccgga gattgaccaa tcatgaggat 1560
 64 tga 1563
 66 <210> SEQ ID NO: 2
 67 <211> LENGTH: 520
 68 <212> TYPE: PRT
 69 <213> ORGANISM: Arabidopsis thaliana
 71 <400> SEQUENCE: 2
 72 Met Glu Glu Ser Ser Trp Phe Ile Pro Lys Val Leu Val Leu
 73 1 5 10 15
 74 Ser Val Ile Leu Ser Leu Val Ile Val Lys Gly Met Ser Leu Leu Trp
 75 20 25 30
 76 Trp Arg Pro Arg Lys Ile Glu Glu His Phe Ser Lys Gln Gly Ile Arg
 77 35 40 45
 78 Gly Pro Pro Tyr His Phe Phe Ile Gly Asn Val Lys Glu Leu Val Gly
 79 50 55 60
 80 Met Met Leu Lys Ala Ser Ser His Pro Met Pro Phe Ser His Asn Ile
 81 65 70 75 80
 82 Leu Pro Arg Val Leu Ser Phe Tyr His His Trp Arg Lys Ile Tyr Gly
 83 85 90 95
 84 Ala Thr Phe Leu Val Trp Phe Gly Pro Thr Phe Arg Leu Thr Val Ala
 85 100 105 110
 86 Asp Pro Asp Leu Ile Arg Glu Ile Phe Ser Lys Ser Glu Phe Tyr Glu
 87 115 120 125
 88 Lys Asn Glu Ala His Pro Leu Val Lys Gln Leu Glu Gly Asp Gly Leu
 89 130 135 140
 90 Leu Ser Leu Lys Gly Glu Lys Trp Ala His His Arg Lys Ile Ile Ser
 91 145 150 155 160
 92 Pro Thr Phe His Met Glu Asn Leu Lys Leu Leu Val Pro Val Val Leu
 93 165 170 175
 94 Lys Ser Val Thr Asp Met Val Asp Lys Trp Ser Asp Lys Leu Ser Glu
 95 180 185 190
 96 Asn Gly Glu Val Glu Val Asp Val Tyr Glu Trp Phe Gln Ile Leu Thr
 97 195 200 205
 98 Glu Asp Val Ile Ser Arg Thr Ala Phe Gly Ser Ser Tyr Glu Asp Gly
 99 210 215 220
 100 Arg Ala Val Phe Arg Leu Gln Ala Gln Gln Met Leu Leu Cys Ala Glu
 101 225 230 235 240
 102 Ala Phe Gln Lys Val Phe Ile Pro Gly Tyr Arg Phe Phe Pro Thr Arg
 103 245 250 255
 104 Gly Asn Leu Lys Ser Arg Lys Leu Asp Lys Glu Ile Arg Lys Ser Leu
 105 260 265 270
 106 Leu Lys Leu Ile Glu Arg Arg Gln Asn Ala Ile Asp Gly Glu Gly
 107 275 280 285
 108 Glu Glu Cys Lys Glu Pro Ala Ala Lys Asp Leu Leu Gly Leu Met Ile
 109 290 295 300
 110 Gln Ala Lys Asn Val Thr Val Gln Asp Ile Val Glu Glu Cys Lys Ser
 111 305 310 315 320

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112 Phe Phe Phe Ala Gly Lys Gln Thr Thr Ser Asn Leu Leu Thr Trp Thr
113 325 330 335
114 Thr Ile Leu Leu Ser Met His Pro Glu Trp Gln Ala Lys Ala Arg Asp
115 340 345 350
116 Glu Val Leu Arg Val Cys Gly Ser Arg Asp Val Pro Thr Lys Asp His
117 355 360 365
118 Val Val Lys Leu Lys Thr Leu Ser Met Ile Leu Asn Glu Ser Leu Arg
119 370 375 380
120 Leu Tyr Pro Pro Ile Val Ala Thr Ile Arg Arg Ala Lys Ser Asp Val
121 385 390 395 400
122 Lys Leu Gly Gly Tyr Lys Ile Pro Cys Gly Thr Glu Leu Leu Ile Pro
123 405 410 415
124 Ile Ile Ala Val His His Asp Gln Ala Ile Trp Gly Asn Asp Val Asn
125 420 425 430
126 Glu Phe Asn Pro Ala Arg Phe Ala Asp Gly Val Pro Arg Ala Ala Lys
127 435 440 445
128 His Pro Val Gly Phe Ile Pro Phe Gly Leu Gly Val Arg Thr Cys Ile
129 450 455 460
130 Gly Gln Asn Leu Ala Ile Leu Gln Ala Lys Leu Thr Leu Ala Val Met
131 465 470 475 480
132 Ile Gln Arg Phe Thr Phe His Leu Ala Pro Thr Tyr Gln His Ala Pro
133 485 490 495
134 Thr Val Leu Met Leu Leu Tyr Pro Gln His Gly Ala Pro Ile Thr Phe
135 500 505 510
136 Arg Arg Leu Thr Asn His Glu Asp
137 515 520
140 <210> SEQ ID NO: 3
142 <220> FEATURE:
143 <223> OTHER INFORMATION: Primer
145 <400> SEQUENCE: 3

W--> 146 000
148 <210> SEQ ID NO: 4
149 <211> LENGTH: 20
150 <212> TYPE: DNA
151 <213> ORGANISM: Artificial Sequence
153 <220> FEATURE:
154 <223> OTHER INFORMATION: Oligonucleotide primer
156 <400> SEQUENCE: 4
157 ctgtcgtgga aagtgtgagg 20
159 <210> SEQ ID NO: 5
160 <211> LENGTH: 18
161 <212> TYPE: DNA
162 <213> ORGANISM: Artificial Sequence
164 <220> FEATURE:
165 <223> OTHER INFORMATION: Oligonucleotide primer
167 <400> SEQUENCE: 5
168 gAACCTTGAC GCTTGGAGG 18
170 <210> SEQ ID NO: 6
171 <211> LENGTH: 19

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172 <212> TYPE: DNA
173 <213> ORGANISM: Artificial Sequence
175 <220> FEATURE:
176 <223> OTHER INFORMATION: Oligonucleotide primer
178 <400> SEQUENCE: 6
179 gctctctcgaa ggtcgacgg 19
181 <210> SEQ ID NO: 7
182 <211> LENGTH: 20
183 <212> TYPE: DNA
184 <213> ORGANISM: Artificial Sequence
186 <220> FEATURE:
187 <223> OTHER INFORMATION: Oligonucleotide primer
189 <400> SEQUENCE: 7
190 gcttgctgga ctatttgagc 20
192 <210> SEQ ID NO: 8
193 <211> LENGTH: 20
194 <212> TYPE: DNA
195 <213> ORGANISM: Artificial Sequence
197 <220> FEATURE:
198 <223> OTHER INFORMATION: Oligonucleotide primer
200 <400> SEQUENCE: 8
201 ggttcaggac attgtggagg 20
203 <210> SEQ ID NO: 9
204 <211> LENGTH: 21
205 <212> TYPE: DNA
206 <213> ORGANISM: Artificial Sequence
208 <220> FEATURE:
209 <223> OTHER INFORMATION: Oligonucleotide primer
211 <400> SEQUENCE: 9
212 ggataacaacc ttaaagactc g 21
214 <210> SEQ ID NO: 10
215 <211> LENGTH: 20
216 <212> TYPE: DNA
217 <213> ORGANISM: Artificial Sequence
219 <220> FEATURE:
220 <223> OTHER INFORMATION: Oligonucleotide primer
222 <400> SEQUENCE: 10
223 gcaactcggt aacgcacaggc 20
225 <210> SEQ ID NO: 11
226 <211> LENGTH: 21
227 <212> TYPE: DNA
228 <213> ORGANISM: Artificial Sequence
230 <220> FEATURE:
231 <223> OTHER INFORMATION: Oligonucleotide primer
233 <400> SEQUENCE: 11
234 tcaagtagca aaatcacggc g 21
236 <210> SEQ ID NO: 12
237 <211> LENGTH: 22
238 <212> TYPE: DNA

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Input Set : A:\SALKINS024DV1.TXT
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239 <213> ORGANISM: Artificial Sequence
 241 <220> FEATURE:
 242 <223> OTHER INFORMATION: Oligonucleotide primer
 244 <400> SEQUENCE: 12
 245 ctcttaatc ctggagatg gc 22
 247 <210> SEQ ID NO: 13
 248 <211> LENGTH: 25
 249 <212> TYPE: DNA
 250 <213> ORGANISM: Artificial Sequence
 252 <220> FEATURE:
 253 <223> OTHER INFORMATION: Oligonucleotide primer
 255 <400> SEQUENCE: 13
 256 ggttgatcat cttctgctaa ttccc 25
 258 <210> SEQ ID NO: 14
 259 <211> LENGTH: 31
 260 <212> TYPE: DNA
 261 <213> ORGANISM: Artificial Sequence
 263 <220> FEATURE:
 264 <223> OTHER INFORMATION: Oligonucleotide primer
 266 <400> SEQUENCE: 14
 267 gatcttgcg ggaaaacaat tggaggatgg t 31
 269 <210> SEQ ID NO: 15
 270 <211> LENGTH: 32
 271 <212> TYPE: DNA
 272 <213> ORGANISM: Artificial Sequence
 274 <220> FEATURE:
 275 <223> OTHER INFORMATION: Oligonucleotide primer
 277 <400> SEQUENCE: 15
 278 cgacttgtca ttagaaagaa agagataaca gg 32
 280 <210> SEQ ID NO: 16
 281 <211> LENGTH: 588
 282 <212> TYPE: DNA
 283 <213> ORGANISM: Arabidopsis thaliana
 285 <220> FEATURE:
 286 <221> NAME/KEY: misc_feature
 287 <222> LOCATION: (1)...(588)
 288 <223> OTHER INFORMATION: n = A,T,C or G
 290 <400> SEQUENCE: 16
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 292 cgttgtata tacatggcg cccctacgcc gttggccttc ctctctctct ctttctctat 120
 293 atctctttct tgatctctct ctataaaagc tcaaatacgcc cagcaagcaa aataatccaa 180
 294 aaagaaaacc aagataagaag aaacaaactc gcaaagaaac aaaaaggaaa aaaaaaaaaa 240
 295 aaacgaatta aaaaaagaag aaataaatcc tccttttaa cacctcattc cctctttctc 300
 296 cggcactcaa aagagaccaa agaagaaaac tttagctctc ctttttggtt tttctcttct 360
 297 ttctttgttg gtgttccgac aatggaggaa gaaagttagca gctgggttcat tccaaagggtt 420
 298 cttgttctgt ctgtaatctt aagtccctgt aatagtgaag ggtatgtctc tggatgttg 480
 299 gagaccaaga aagattgaag aacatttctc taaacaagga attcgagtc ctccttatca 540
 300 ttcttcatc ggaaatgtta aagaacttgt tgaatgtatc ttaaaagct 588

VERIFICATION SUMMARY

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DATE: 12/03/2001

TIME: 14:45:51

Input Set : A:\SALKINS024DV1.TXT

Output Set: N:\CRF3\11212001\I992901.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:146 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (3) SEQUENCE:

L:291 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16